UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,491	01/16/2007	Vesa Myllymaki	0696-0240PUS1	3826

2292 7590 11/04/2008

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
BLAND, LAYLA D	

ART UNIT	PAPER NUMBER
1623	

NOTIFICATION DATE	DELIVERY MODE
11/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Advisory Action

This office action is in response to Applicant's response after FINAL filed on October 17, 2008.

Applicant's remarks/arguments filed October 17, 2008 after FINAL with respect to the rejections made under 35 USC 103(a) have been fully considered but are not found to be persuasive.

Applicant argues that Swatloski does not teach separation of derivatizated cellulose. Swatloski teaches a method for dissolving cellulose for derivatization. Swatloski also teaches that cellulose can be precipitated from the ionic liquid solution using water, ethanol, acetone, or salt solutions. Although Swatloski does not exemplify precipitation of a derivatized cellulose, the concept is taught.

Applicant argues that the Swatloski reference is not enabling. The skilled artisan would have a reasonable expectation of success in using the cited references to arrive at a method for etherifying cellulose. Swatloski teaches a method for solubilizing cellulose for derivatization. Reagents for etherifying cellulose are well known in the art, as shown by the Brandt reference. The combination of such would reasonably be expected to succeed.

Applicant argues that it is unclear how the Examiner can take the esterification reactions of Nobuo and Swatloski and convert them into etherifications. Nobuo and Swatloski teach derivatization reactions, generally, which are desirable because polysaccharides such as cellulose can be solubilized in ionic liquids, in the absence of

water. Brandt teaches the desirability of cellulose ethers (see the introduction section of the reference). Thus, it would have been obvious to employ the ionic liquids of Nobuo and/or Swatloski in a synthesis of cellulose ethers. Brandt also teaches reagents which are known in the art for etherification of cellulose, so the skilled artisan would have a reasonable expectation of success.

Applicant argues that the Swatloski method is carried out in the absence of water and that the Brandt reference teaches that water is required for the reaction. This argument is not persuasive because, as MPEP 2141.03 states: "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." The Swatloski reference is drawn to ionic liquid which solubilizes cellulose for derivatization. Nubuo teaches that such ionic liquids are useful because they permit solubilization in the absence of water. Brandt's teaching of reaction in an aqueous solution includes water for the purpose of solubilizing the cellulose. The skilled artisan would understand that derivatization of solubilized cellulose in ionic liquid, as taught by Swatloski, would not require the addition of water which was required in the absence of ionic liquid, because the cellulose would be dissolved in the ionic liquid. Thus, the skilled artisan would not interpret the teachings to mean that, in order to etherify cellulose in ionic liquids, that large amounts of water should be added.

Thus, all rejections of record in the Final Office Action dated June 18, 2008 are maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAYLA BLAND whose telephone number is (571)272-9572. The examiner can normally be reached on Tuesday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anna Jiang can be reached on (571) 272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623

/Layla Bland/
Examiner, Art Unit 1623